Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (Currently Amended) A compound comprising a recombinant nucleic acid encoding an antiangiogenic protein <u>operatively linked to an adenovirus signal sequence</u> inserted within a viral nucleic acid, wherein the recombinant nucleic acid can be packaged in a virus particle and wherein expression of the recombinant nucleic acid encoding the antiangiogenic protein results in production of the antiangiogenic protein.
- 2. (Original) The compound of claim 1, wherein the viral nucleic acid comprises an adenovirus nucleic acid.
- 3. (Original) The compound of claim 1, wherein the viral nucleic acid comprises a retroviral nucleic acid.
- 4. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises endostatin.
- 5. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises thrombospondin.
- 6. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises EMAP-II
- 7. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises IP-10.
- 8. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises angiostatin.
- 9. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises vasostatin.
- 10. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises vasculostatin.

303903 -2-

- 11. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises IL-12.
- 12. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises platelet factor 4.
- 13. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises cleavage products of collagen VIII.
- 14. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises cleavage products of collagen XV.
- 15. (Original) The compound of claim 1, wherein the antiangiogenic protein comprises restatin.
- 16. (Original) The compound of claim 2, wherein the recombinant nucleic acid is replication deficient.
- 17. (Original) The compound of claim 3, wherein the recombinant nucleic acid is replication deficient.
- 18. (Original) An adenovirus comprising the compound of claim 2.
- 19. (Original) A retrovirus comprising the compound of claim 3.
- 20. (Cancelled)
- 21. (Currently Amended) The compound of claim 20 1, wherein the signal sequence comprises the adenovirus E19 signal sequence.
- 22. (Original) The signal sequence of claim 21, wherein the sequence encodes an amino acid sequence comprising the amino acid sequence MRYMILGLLALAAVCSAA.
- 23. (Original) A method of delivering an antiangiogenic protein to a cell comprising administering to the cell the adenovirus of claim 18 or the retrovirus of claim 19, whereby

303903 - 3 -

ATTORNEY DOCKET NO. 14014.0322U2 SERIAL NO. 10/031,008

expression of the recombinant nucleic acid produces the antiangiogenic protein, thereby delivering the antiangiogenic protein to the cell.

- 24. (Original) The method of claim 23, wherein the cell is administered the antiangiogenic protein *ex vivo*.
- 25. (Original) The method of claim 23, wherein the cell is administered the antiangiogenic protein *in vivo*.
- 26. (Original) The method of claim 23, wherein the cell is administered the antiangiogenic protein *in culture*.
- 27. (Original) The method of claim 23, wherein the cell is a human hepatocyte.
- 28. (Original) The method of claim 23, wherein the cell is a lung cell.
- 29. (Currently amended) A method of delivering an antiangiogenic protein to a subject comprising administering to the subject the adenovirus of claim 3 2, whereby a cell of the subject expresses the recombinant nucleic acid encoding the antiangiogenic protein, thereby delivering the antiangiogenic protein to the subject.
- 30. (Original) A method of treating a tumor in a subject comprising administering to the subject the adenovirus of claim 18 or the retrovirus of claim 19, whereby a cell in the subject expresses the recombinant nucleic acid encoding the antiangiogenic protein and produces the antiangiogenic, thereby treating the tumor.
- 31. (Original) A method of producing an antiangiogenic protein comprising administering to a cell the adenovirus of claim 18 or the retrovirus of claim 19, whereby expression of the recombinant nucleic acid produces the antiangiogenic protein.
- 32. (Original) A method of screening an antiangiogenic protein for bioactivity, comprising
- a. administering to a first cell a virus containing a recombinant nucleic acid encoding the antiangiogenic protein, wherein the first cell expresses the recombinant nucleic acid encoding the antiangiogenic protein and thereby produces the antiangiogenic protein;

303903 - 4 -

ATTORNEY DOCKET NO. 14014.0322U2 SERIAL NO. 10/031,008

- b. contacting a second cell with the antiangiogenic protein; and
- c. monitoring the second cell for a biological response to the antiangiogenic protein, thereby screening the antiangiogenic protein for bioactivity.
- 33. (Original) The method of claim 32, wherein the antiangiogenic protein is harvested from the first cell before the second cell is contacted with the antiangiogenic protein.
- 34. (Original) The method of claim 32, wherein the first cell producing the antiangiogenic protein is administered to the second cell.
- 35. (Original) The method of claim 32, wherein the first cell and the second cell are of the same cell type.
- 36. (Original) The method of claim 32, wherein the first cell and the second cell are of a different cell type.
- 37. (Currently Amended) A protein comprising an antiangiogenic protein and an adenovirus signal sequence.
- 38. (Cancelled)
- 39. (Currently Amended) The protein of claim 38 37, wherein the adenovirus signal sequence is the adenovirus E19 signal sequence.

303903 - 5 -